<u>AMENDMENTS TO THE CLAIMS:</u>

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended): A spatialization system [[(42)]] for at least one sound source creating for each source two spatialized monophonic channels (L, R) designed to be received by a listener, comprising:

[[-]] a filter database [[(13)]] comprising a set of head-related transfer functions (HRTF) specific to the listener,

[[-]] a data presentation processor (CPU1) receiving the information from each source and comprising in particular a module [[(101)]] for computing the relative positions of the sources in relation to the listener,

[[-]] a unit (CPU2) for computing said monophonic channels by convolution of each sound source with head-related transfer functions of said database estimated at said source position,

the system being characterized in that wherein said data presentation processor comprises a head-related transfer function selection module [[(102)]] with a variable resolution suited to the relative position of the source in relation to the listener.

2. (currently amended): The spatialization system as claimed in claim 1, characterized in that wherein the head-related transfer functions (HRTF) included in the database [[(13)]] are collected at 7° intervals in azimuth, from 0 to 360°, and at 10° intervals in elevation, from -70° to +90°.

3. (currently amended): The spatialization system as claimed in either of claim[[s]] 1 or 2, characterized in that wherein the number of coefficients of each head-related transfer function is approximately 40.

4. (currently amended): The spatialization system as claimed in ~~one of the preceding~~ claim[[s]] 1, ~~characterized in that~~ wherein it ~~comprises~~ comprising a sound database [[(14)]] ~~containing~~ including in digital form a monophonic sound signal characteristic of each source to be spatialized, this sound signal being designed to be convoluted with the selected head-related transfer functions.

5. (currently amended): The sound spatialization system as claimed in claim 4, ~~characterized in that~~ wherein the data presentation processor ~~(CPU1)~~ comprises a sound selection module [[(103)]] linked to the sound database [[(14)]] prioritizing between the concomitant sound sources to be spatialized.

6. (currently amended): The sound spatialization system as claimed in claim 5, ~~characterized in that~~ wherein the data presentation processor ~~(CPU1)~~ comprises a configuration and programming module [[(104)]] to which is linked the sound selection module [[(103)]] and in which are stored customization criteria specific to the listener.

7. (currently amended): The spatialization system as claimed in ~~one of the preceding~~ claim[[s]] 1, ~~characterized in that~~ wherein it comprises an input/output audio conditioning module [[(16)]] which retrieves at the output the spatialized monophonic channels ~~(L, R)~~ to format them before sending them to the listener.

8. (currently amended): The spatialization system as claimed in claim 7, ~~characterized in that~~ wherein since [["]]live[["]] communications have to be spatialized, these communications are formatted by the conditioning module [[(16)]] so they can be spatialized by the computation unit ~~(CPU2)~~.

9. (currently amended): The sound spatialization system as claimed in ~~one of the preceding~~ claim[[s]] 1, ~~characterized in that~~ wherein the computation unit ~~(CPU2)~~ comprises a

processor interface [[(203)]] linked with the data presentation unit (CPU1) and a computer [[(202)]] for generating spatialized monophonic channels (L, R).

10. (currently amended): The sound spatialization system as claimed in claim 9, characterized in that wherein since the system comprises a sound database [[(14)]], the processor interface [[(203)]] comprises buffer registers for the transfer functions from the filter database [[(13)]] and the sounds from the sound database [[(14)]].

11. (currently amended): The spatialization system as claimed in either of claim[[s]] 9 or 10, characterized in that wherein the computer [[(202)]] is implemented by an EPLD type programmable component.

12. (currently amended): The spatialization system as claimed in either of claim[[s]] 10 [[or 11]], characterized in that wherein the computer [[(202)]] comprises a source activation and selection module [[(204)]], performing the mixing function between [["]]live[["]] communications and the sounds from the sound database [[(14)]].

13. (currently amended): The spatialization system as claimed in one of claim[[s]] 9 to 12, characterized in that wherein the computer [[(202)]] comprises a dual spatialization module [[(205)]] which receives the appropriate transfer functions and performs the convolution with the monophonic signal to be spatialized.

14. (currently amended): The spatialization system as claimed in one of claim[[s]] 9 to 13, characterized in that wherein the computer [[(202)]] comprises a soft switching module [[(206)]] implemented by a dual linear weighting ramp.

15. (currently amended): The spatialization system as claimed in one of claim[[s]] 9 to 14, characterized in that wherein the computer [[(202)]] comprises an atmospheric absorption simulation module [[(208)]].

16. (currently amended): The spatialization system as claimed in ~~one of~~ claim[[s]] 9 ~~to 15, characterized in that~~ wherein the computer [[(202)]] comprises a dynamic range weighting module [[(209)]] and a summation module [[(210)]] to obtain the weighted sum of the channels of each track and provide a single stereophonic signal compatible with the output dynamic range.

17. (currently amended): An integrated modular avionics system [[(40)]] comprising a high speed bus [[(41)]] to which is connected the sound spatialization system [[(42)]] as claimed in ~~one of the preceding~~ claim[[s]] 1 via the data presentation processor [[(CPU1)]].

18. (new): The spatialization system as claimed in claim 11, wherein the computer comprises a source activation and selection module, performing the mixing function between live communications and the sounds from the sound database.

19. (new): The spatialization system as claimed in claim 10, wherein the computer comprises a dual spatialization module which receives the appropriate transfer functions and performs the convolution with the monophonic signal to be spatialized.

20. (new): The spatialization system as claimed in claim 10, wherein the computer comprises an atmospheric absorption simulation module.